From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us >

Sent:

Tuesday, April 29, 2014 4:03 PM

To:

Park, Andy

Subject:

FW: Air Dispersion Model - Solvay

Andy,

Please see Solvay's response to EPA's comment on the air dispersion model.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Gertz, Mitchell [mailto:mitchell.gertz@solvay.com]

Sent: Tuesday, April 29, 2014 7:48 AM

To: Bergman, Erica

Cc: Philip Goodrum; Jim Lape; Geoff Pass; Charles Jones

Subject: Air Dispersion Model

Erica,

This email is in response to your email of April 10, 2014 that contained the EPA comments on the air model. The USEPA suggestion was "The modeling analysis will provide a better spatial distribution of the cumulative impacts if there is a model run with all the units emitting the same pollutant in a single run. This would show spatial distribution of the cumulative impacts rather than the individual units even if unit emissions are desired."

We think there was a misunderstanding of our intentions regarding the model. Our air modeling team agrees and planned just such a model run to examine cumulative contributions to both air concentrations and particle deposition. That is, we will simulate a scenario in which all air emission units are operating together. Multiple such model runs will be conducted to examine a wide range of individual source contributions to the cumulative annual airborne emissions based on estimates of historic emission rates. The results of this analysis will supplement the results of model runs in which each emission unit is examined individually.

Mitch Gertz Solvay Specialty Polymers HSE Compliance Manager T: 856-251-6630 - M: 856-371-9318 10 Leonard Lane West Deptford, NJ 08086 www.solvay.com this message in error, please delete it and immediately notify the sender. Any copying, dissemination or disclosure, either whole or partial, by a person who is not the named addressee is prohibited. We use virus scanning software but disclaim any liability for viruses or other devices which remain in this message or any attachments.

Ce message, ainsi que toute piece jointe, est exclusivement adresse au(x) destinataire(s) nomme(s) et peut contenir des informations confidentielles. Si vous recevez ce message par erreur. merci de le detruire et d'en avertir immediatement l'emetteur. Toute copie, transmission ou divulgation, integrale ou partielle, par une personne qui n'est pas nommee comme destinataire est interdite. Nous utilisons un logiciel anti-virus mais nous denions toute responsabilite au cas ou des virus, ou tout autre procede, seraient contenus dans ce message ou toute piece jointe.

From:

Azzam, Nidal∨

Sent:

Monday, April 28, 2014 5:22 PM

To:

Bergman, Erica

Cc:

Everett, Adolph; Park, Andy

Subject:

RE: Solvay- Pre-meeting

Sounds like a plan. By copy, I am letting both Adolph and Andy know. They should be able to attend the premeeting in person as long as it is on the same day.

Nidal Azzam, Base Program Management Section, Chief Hazardous Waste Programs Branch Clean Air and Sustainability Division USEPA Region 2 290 Broadway, 22nd Floor New York, NY 10007 212-637-3748 Office 212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Monday, April 28, 2014 2:36 PM

To: Azzam, Nidal

Subject: RE: Solvay- Pre-meeting

Nidal,

Ken Kloo is now not available to have the pre-meeting on Thurs. May 1. How do you feel about coming in earlier next Monday, May 5? We could have the pre-meeting at 11:00, break for lunch and then meet with Solvay at 1:00?

Erica Bergman NJDE:P - Bureau of Case Management 401 E. State Street - Mail Code 401-05 P.O. Box 420 Trenton, NJ 08625-0420 erica.bergman@dep.state.nj.us 609-292-7406

----Original Appointment----

From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov/]

Sent: Monday, April 28, 2014 2:25 PM

To: Bergman, Erica

Cc: Everett, Adolph; Park, Andy

Subject: Accepted: Solvay- Pre-meeting **When:** Thursday, May 01, 2014 2:00 PM-3:00 PM (GMT-05:00) Eastern Time (US & Canada).

Where: Ken Kloo's conference room

We will attend via conference call. For now let us plan that DEP will call us at Adolph's office at 212-637-3748.

From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Wednesday, April 23, 2014 10:29 AM

To:

Park, Andy; Azzam, Nidal

Subject:

RE: May 1 Meeting with Solvay

When you and others from EPA arrive in the lobby, they will call me and I will come downstairs and bring you up to the meeting room. We will probably pre-meet in Steve Maybury's office.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov] Sent: Wednesday, April 23, 2014 10:14 AM

To: Bergman, Erica; Azzam, Nidal

Subject: RE: May 1 Meeting with Solvay

It is alright with me to pre-meet at 1:00 pm - where to meet?

Andrew Park, Acting Chief
Corrective Action Section
Hazardous Waste Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184 (O)
212-637-4437 (F)
park.andy@epa.gov (E-Mail)

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Wednesday, April 23, 2014 9:50 AM

To: Park, Andy; Azzam, Nidal

Subject: RE: May 1 Meeting with Solvay

Solvay is supposed to forward some data and figures a couple of days prior to the May 1 meeting. I will forward to you if Solvay doesn't cc you.

Does EPA want to come to DEP a little early (1:00), to pre-meet prior to meeting with Solvay?

Erica Bergman

NJDEP - Bureau of Case Management 401 E. State Street - Mail Code 401-05 P.O. Box 420 Trenton, NJ 08625-0420 erica.bergman@dep.state.nj.us 609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]
Sent: Wednesday, April 23, 2014 9:28 AM

To: Azzam, Nidal; Bergman, Erica **Subject:** RE: May 1 Meeting with Solvay

Erica,

In addition, please provide us with the map showing well locations that will be submitted before the 5/1 meeting, as noted in their April 21 response.

Thanks, Andy

From: Azzam, Nidal

Sent: Wednesday, April 23, 2014 9:04 AM

To: Bergman, Erica Cc: Park, Andy

Subject: May 1 Meeting with Solvay

Erica,

Do you have a summary table of all the PFC sampling results conducted by Solvay thus far? If so, can you please share it with us. Thank you



From:

Park, Andy

Sent:

Wednesday, April 23, 2014 10:14 AM

To:

Bergman, Erica; Azzam, Nidal 🗸

Subject:

RE: May 1 Meeting with Solvay

It is alright with me to pre-meet at 1:00 pm - where to meet?

Andrew Park, Acting Chief
Corrective Action Section
Hazardous Waste Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184 (O)
212-637-4437 (F)
park.andy@epa.gov (E-Mail)

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Wednesday, April 23, 2014 9:50 AM

To: Park, Andy; Azzam, Nidal

Subject: RE: May 1 Meeting with Solvay

Solvay is supposed to forward some data and figures a couple of days prior to the May 1 meeting. I will forward to you if Solvay doesn't cc you.

Does EPA want to come to DEP a little early (1:00), to pre-meet prior to meeting with Solvay?

Erica Bergman

NJDEP - Bureau of Case Management

401 E. State Street - Mail Code 401-05

P.O. Box 420

Trenton, NJ 08625-0420

erica.bergman@dep.state.nj.us

609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]
Sent: Wednesclay, April 23, 2014 9:28 AIM

To: Azzam, Nidal; Bergman, Erica Subject: RE: May 1 Meeting with Solvay

Erica,

In addition, please provide us with the map showing well locations that will be submitted before the 5/1 meeting, as noted in their April 21 response.

From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Tuesday, April 29, 2014 4:03 PM

To:

Park, Andy

Subject:

FW: Air Dispersion Model - Solvay

Andy,

Please see Solvay's response to EPA's comment on the air dispersion model.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Gertz, Mitchell [mailto:mitchell.gertz@solvay.com]

Sent: Tuesday, April 29, 2014 7:48 AM

To: Bergman, Erica

Cc: Philip Goodrum; Jim Lape; Geoff Pass; Charles Jones

Subject: Air Dispersion Model

Erica.

This email is in response to your email of April 10, 2014 that contained the EPA comments on the air model. The USEPA suggestion was "The modeling analysis will provide a better spatial distribution of the cumulative impacts if there is a model run with all the units emitting the same pollutant in a single run. This would show spatial distribution of the cumulative impacts rather than the individual units even if unit emissions are desired."

We think there was a misunderstanding of our intentions regarding the model. Our air modeling team agrees and planned just such a model run to examine cumulative contributions to both air concentrations and particle deposition. That is, we will simulate a scenario in which all air emission units are operating together. Multiple such model runs will be conducted to examine a wide range of individual source contributions to the cumulative annual airborne emissions based on estimates of historic emission rates. The results of this analysis will supplement the results of model runs in which each emission unit is examined individually.

Mitch Gertz
Solvay Specialty Polymers
HSE Compliance Manager
T: 856-251-6630 - M: 856-371-9318
10 Leonard Lane
West Deptford, NJ 08086
www.solvay.com

this message in error, please delete it and immediately notify the sender. Any copying, dissemination or disclosure, either whole or partial, by a person who is not the named addressee is prohibited. We use virus scanning software but disclaim any liability for viruses or other devices which remain in this message or any attachments.

Ce message, ainsi que toute piece jointe, est exclusivement adresse au(x) destinataire(s) nomme(s) et peut contenir des informations confidentielles. Si vous recevez ce message par erreur, merci de le detruire et d'en avertir immediatement l'emetteur. Toute copie, transmission ou divulgation, integrale ou partielle, par une personne qui n'est pas nommee comme destinataire est interdite. Nous utilisons un logiciel anti-virus mais nous denions toute responsabilite au cas ou des virus, ou tout autre procede, seraient contenus dans ce message ou toute piece jointe.

From:

Azzam, Nidal∨

Sent:

Monday, April 28, 2014 5:22 PM

To:

Bergman, Erica

Cc:

Everett, Adolph; Park, Andy

Subject:

RE: Solvay- Pre-meeting

Sounds like a plan. By copy, I am letting both Adolph and Andy know. They should be able to attend the premeeting in person as long as it is on the same day.

Nidal Azzam,
Base Program Management Section, Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Monday, April 28, 2014 2:36 PM

To: Azzam, Nidal

Subject: RE: Solvay- Pre-meeting

Nidal.

Ken Kloo is now not available to have the pre-meeting on Thurs. May 1. How do you feel about coming in earlier next Monday, May 5? We could have the pre-meeting at 11:00, break for lunch and then meet with Solvay at 1:00?

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

----Original Appointment----

From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov]

Sent: Monday, April 28, 2014 2:25 PM

To: Bergman, Erica

Cc: Everett, Adolph; Park, Andy

Subject: Accepted: Solvay- Pre-meeting

When: Thursday, May 01, 2014 2:00 PM-3:00 PM (GMT-05:00) Eastern Time (US & Canada).

Where: Ken Kloo's conference room

We will attend via conference call. For now let us plan that DEP will call us at Adolph's office at 212-637-3748.

From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Wednesday, April 23, 2014 10:29 AM

To:

Park, Andy; Azzam, Nidal

Subject:

RE: May 1 Meeting with Solvay

When you and others from EPA arrive in the lobby, they will call me and I will come downstairs and bring you up to the meeting room. We will probably pre-meet in Steve Maybury's office.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov] Sent: Wednesday, April 23, 2014 10:14 AM

To: Bergman, Erica; Azzam, Nidal **Subject:** RE: May 1 Meeting with Solvay

It is alright with me to pre-meet at 1:00 pm - where to meet?

Andrew Park, Acting Chief
Corrective Action Section
Hazardous Waste Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184 (O)
212-637-4437 (F)
park.andy@epa.gov (E-Mail)

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Wednesday, April 23, 2014 9:50 AM

To: Park, Andy; Azzam, Nidal

Subject: RE: May 1 Meeting with Solvay

Solvay is supposed to forward some data and figures a couple of days prior to the May 1 meeting. I will forward to you if Solvay doesn't cc you.

Does EPA want to come to DEP a little early (1:00), to pre-meet prior to meeting with Solvay?

Erica Bergman

NJDEP - Bureau of Case Management 401 E. State Street - Mail Code 401-05 P.O. Box 420 Trenton, NJ 08625-0420 erica.bergman@dep.state.nj.us 609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]
Sent: Wednesday, April 23, 2014 9:28 AM

To: Azzam, Nidal; Bergman, Erica **Subject:** RE: May 1 Meeting with Solvay

Erica,

In addition, please provide us with the map showing well locations that will be submitted before the 5/1 meeting, as noted in their April 21 response.

Thanks, Andy

From: Azzam, Nidal

Sent: Wednesday, April 23, 2014 9:04 AM

To: Bergman, Erica Cc: Park, Andy

Subject: May 1 Meeting with Solvay

Erica.

Do you have a summary table of all the PFC sampling results conducted by Solvay thus far? If so, can you please share it with us. Thank you



From:

Park, Andy

Sent:

Wednesday, April 23, 2014 10:14 AM

To:

Bergman, Erica; Azzam, Nidal >

Subject:

RE: May 1 Meeting with Solvay

It is alright with me to pre-meet at 1:00 pm – where to meet?

Andrew Park, Acting Chief
Corrective Action Section
Hazardous Waste Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184 (O)
212-637-4437 (F)
park.andy@epa.gov (E-Mail)

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Wednesday, April 23, 2014 9:50 AM

To: Park, Andy; Azzam, Nidal

Subject: RE: May 1 Meeting with Solvay

Solvay is supposed to forward some data and figures a couple of days prior to the May 1 meeting. I will forward to you if Solvay doesn't cc you.

Does EPA want to come to DEP a little early (1:00), to pre-meet prior to meeting with Solvay?

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]
Sent: Wednesday, April 23, 2014 9:28 AM

To: Azzam, Nidal; Bergman, Erica

Subject: RE: May 1 Meeting with Solvay

Erica,

In addition, please provide us with the map showing well locations that will be submitted before the 5/1 meeting, as noted in their April 21 response.

Thanks, Andy

From: Azzam, Nidal.

Sent: Wednesday, April 23, 2014 9:04 AM

To: Bergman, Erica Cc: Park, Andy

Subject: May 1 Meeting with Solvay

Erica,

Do you have a summary table of all the PFC sampling results conducted by Solvay thus far? If so, can you please share it with us. Thank you



From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Wednesday, April 23, 2014 9:50 AM

To: Subject: Park, Andy; Azzam, Nidal RE: May 1 Meeting with Solvay

Solvay is supposed to forward some data and figures a couple of days prior to the May 1 meeting. I will forward to you if Solvay doesn't cc you.

Does EPA want to come to DEP a little early (1:00), to pre-meet prior to meeting with Solvay?

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov] Sent: Wednesday, April 23, 2014 9:28 AM

To: Azzam, Nidal; Bergman, Erica

Subject: RE: May 1 Meeting with Solvay

Erica,

In addition, please provide us with the map showing well locations that will be submitted before the 5/1 meeting, as noted in their April 21 response.

Thanks, Andy

From: Azzam, Nidal

Sent: Wednesday, April 23, 2014 9:04 AM

To: Bergman, Erica Cc: Park, Andy

Subject: May 1 Meeting with Solvay

Erica,

Do you have a summary table of all the PFC sampling results conducted by Solvay thus far? If so, can you please share it with us. Thank you



From:

Park, Andy

Sent:

Wednesday, April 23, 2014 9:28 AM

To:

√Azzam, Nidal; Bergman, Erica

Subject:

RE: May 1 Meeting with Solvay

Erica,

In addition, please provide us with the map showing well locations that will be submitted before the 5/1 meeting, as noted in their April 21 response.

Thanks, Andy

From: Azzam, Nidal

Sent: Wednesday, April 23, 2014 9:04 AM

To: Bergman, Erica Cc: Park, Andy

Subject: May 1 Meeting with Solvay

Erica,

Do you have a summary table of all the PFC sampling results conducted by Solvay thus far? If so, can you please share it with us. Thank you



From: Azzam, Nidal ~

Sent: Wednesday, April 23, 2014 9:04 AM

To: Bergman, Erica Cc: Park, Andy

Subject: May 1 Meeting with Solvay

Erica,

Do you have a summary table of all the PFC sampling results conducted by Solvay thus far? If so, can you please share it with us. Thank you



From: Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent: Friday, April 11, 2014 4:50 PM **To:** Azzam, Nidal; Everett, Adolph

Cc: Park, Andy

Subject: Solvay - PFC investigation - meeting with W. Deptford

Nidal and Adolph,

FYI...W. Deptford has requested through Deputy Commissioner Siekerka that DEP and NJDOH meet with W. Deptford officials by attending a Township Council meeting on Thurs. April 17 at 7 pm. DEP-Water Supply and Site Remediation are attending. NJDOH is not available, but Fred Sickles, Director of Water Supply will be addressing health related questions.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From:

Park, Andy

Sent:

Wednesday, April 09, 2014 4:11 PM

To:

Bergman, Erica; John, Greg

Cc:

Azzam, Nidal; Everett, Adolph

Subject:

RE: Response to comments on air dispersion model

Erica,

Response 1, 2 and 3 are adequate. However, Response 4 should still be addressed further. The modeling analysis will provide a better spatial distribution of the cumulative impacts if there is a model run with all the units emitting the same pollutant in a single run. This would show spatial distribution of the cumulative impacts rather than the individual units even if unit emissions are desired.

Let me know if you have any questions.

Thanks, Andy

Andrew Park, Acting Chief
Corrective Action Section
Hazardous Waste Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184 (O)
212-637-4437 (F)
park.andy@epa.gov (E-Mail)

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Wednesday, April 09, 2014 12:01 PM

To: Park, Andy; John, Greg

Subject: FW: Response to comments on air dispersion model

See attached for Solvay's response to EPA comments on the air dispersion modeling.

Let me know if their responses are acceptable.

thanks, Erica

From: Gertz, Mitchell [mailto:mitchell.gertz@solvay.com]

Sent: Wednesday, April 09, 2014 11:42 AM

To: Bergman, Erica

Subject: Response to comments on air dispersion model

Erica,

Attached is our consultant's (Integral) response to the comments on the air dispersion model.

Contact me if there are any questions.

Mitch Gertz Solvay Specialty Polymers HSE Compliance Manager T: 856-251-6630 - M: 856-371-9318 10 Leonard Lane West Deptford, NJ 08086 www.solvay.com

This message and any attachments is intended for the named addressee(s) only and may contain information that is privileged and/or confidential. If you receive this message and any attachments is included for the market dedicased of the m attachments.

Ce message, ainsi que toute piece jointe, est exclusivement adresse au(x) destinataire(s) nomme(s) et peut contenir des informations confidentielles. Si vous recevez ce message par erreur, merci de le detruire et d'en avertir immediatement l'emetteur. Toute copie, transmission ou divulgation, integrale ou partielle, par une personne qui n'est pas nommee comme destinataire est interdite. Nous utilisons un logiciel anti-virus mais nous denions toute responsabilite au cas ou des virus, ou tout autre procede, seraient contenus dans ce message ou toute piece jointe.

From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us >

Sent:

Wednesday, April 09, 2014 12:01 PM

To:

Park, Andy; John, Greg

Subject:

FW: Response to comments on air dispersion model

Attachments:

Air Dispersion Comment Response.docx

See attached for Solvay's response to EPA comments on the air dispersion modeling.

Let me know if their responses are acceptable.

thanks, Erica

From: Gertz, Mitchell [mailto:mitchell.gertz@solvay.com]

Sent: Wednesday, April 09, 2014 11:42 AM

To: Bergman, Erica

Subject: Response to comments on air dispersion model

Erica,

Attached is our consultant's (Integral) response to the comments on the air dispersion model.

Contact me if there are any questions.

Mitch Gertz Solvay Specialty Polymers HSE Compliance Manager T: 856-251-6630 - M: 856-371-9318 10 Leonard Lane West Deptford, NJ 08086 www.solvay.com

This message and any attachments is intended for the named addressee(s) only and may contain information that is privileged and/or confidential. If you receive this message in error, please delete it and immediately notify the sender. Any copying, dissemination or disclosure, either whole or partial, by a person who is not the named addressee is prohibited. We use virus scanning software but disclaim any liability for viruses or other devices which remain in this message or any attachments.

Ce message, ainsi que toute piece jointe, est exclusivement adresse au(x) destinataire(s) nomme(s) et peut contenir des informations confidentielles. Si vous recevez ce message par erreur, merci de le detruire et d'en avertir immediatement l'emetteur. Toute copie, transmission ou divulgation, integrale ou partielle, par une personne qui n'est pas nommee comme destinataire est interdite. Nous utilisons un logiciel anti-virus mais nous denions toute responsabilite au cas ou des virus, ou tout autre procede, seraient contenus dans ce message ou toute piece jointe.



Integral Consulting Inc. 200 Harry S. Truman Parkway Suite 330 Annapolis, MD 21401

telephone: 410.573.1982 facsimile: 410.573.9746 www.integral-corp.com

MEMORANDUM

To: Mitch Gertz, Solvay Specialty Polymers LLC

From: Jim Lape, Integral Consulting Inc.

Date: April 8, 2014

Subject: Response to Comments from USEPA on Air Modeling Protocol for

Airborne Perfluoroalkyl Emissions

Project No.: C1165-0401

This memorandum provides responses to four comments from the NJDEP regarding the air modeling proposed for historic airborne emissions of perfluoroalkyl compounds from the Solvay Specialty Polymers USA, (Solvay) LLC facility in West Deptford, New Jersey. The comments were conveyed in an email from Erica Bergman of NJDEP to you on March 31, 2014. We have reproduced the comments below.

RESPONSE TO COMMENTS FROM USEPA

Comment #1 – The AERMOD dispersion model was used in this case which is acceptable. NJDEP ran the AERMET preprocessor and provided the facility with the preprocessed meteorological data that is input to AERMOD. The meteorological data was measured at the National Weather Station in Philadelphia between 1990 to 1994 with concurrent upper air data from Atlantic City and Brookhaven. The time frame and location of the measurements are acceptable. However, it would be advisable to run the model and process the data using the most current version of AERMOD and AERMET. It is not clear which version was used in this case.

Response #1 – The air modeling is being conducted using version 13350 of AERMOD, which is the most current version. We are using meteorological data provided by Greg John of NJDEP. The data were compiled for the period from 2008 to 2012 from surface observations at the National Weather Service (NWS) Station in Philadelphia, PA, and concurrent upper air data from the NWS Station in Sterling, VA. The data were processed using AERMET version 12345, which is compatible with AERMOD version 13350.

Response to Comments from USEPA on Air Modeling Input Parameters April 8, 2014 Page 2 of 3

Comment #2 – The workplan notes that some of the meteorological parameters that are necessary for deposition modeling (such as precipitation and relative humidity) may be missing from the NJDEP data set. If so, the facility will obtain the additional data and include it in the final report. Again, this is acceptable but AERMET will need to be rerun using the full data set.

Response #2 – The meteorological data provided by NJDEP for this modeling effort contained all necessary parameters to allow for wet and dry particle deposition modeling; therefore, no additional data are required after all.

Comment #3 – The model plan assumes that all the terrain in the area is flat. If the terrain in the area of impact is below stack height then this may be a reasonable assumption. But if the terrain height exceeds the stack height then the AERMAP preprocessor should also be run using the actual terrain features. AERMOD would then need the actual base elevation of the emission points and of the anemometer. These must be inputted into the model (preferably in meters). The receptor grid would also need to reflect the actual ground elevation.

Response #3 – There are no locations within the model domain where the terrain elevations exceed the stack height for the primary stack sources. Additionally, the vast majority of the terrain within the model domain is below the shortest of the secondary stack sources. The terrain to the southeast of the air emission sources gently rises and reaches an elevation equal to or greater to the height of the secondary stack sources at a distance of 2 miles downstream. However, the maximum ground-level air concentrations in this direction for emissions from the secondary sources occur more than 1.5 miles upstream of this location.

In summary, the primary stack sources, which are the focus of this modeling exercise, are above the maximum terrain elevation throughout the model domain, and the effects of terrain on air concentrations for the secondary sources will be negligible in areas of elevated terrain. Accordingly, the model runs will reflect the assumption as specified in the Work Plan.

Comment #4 – There were separate input files for each emission point. It would be preferable to include all the emission points into a single input file so that the cumulative impacts may be better assessed.

Response #4 – Source-specific air emission data were not available for the site; therefore, each of the relevant stacks were modeled discreetly using a unit emission rate to provide an understanding of the relative dispersion and deposition characteristics for each source. In the absence of source-specific emissions data, these individual results, combined with an understanding of the nature of the processes leading to the airborne emissions, are fundamental to developing a reliable conceptualization of the spatial distribution of

Response to Comments from USEPA on Air Modeling Input Parameters April 8, 2014 Page 3 of 3

airborne emissions. The final air modeling report will provide details on additional air modeling conducted as part of the sensitivity and uncertainty analysis performed for this project to evaluate the potential cumulative effect on the spatial distribution from multiple air emission sources operating simultaneously.

From:

Park, Andy

Sent:

Monday, April 07, 2014 4:06 PM Everett, Adolph; Azzam, Nidal

To: Subject:

FW: Solvay PFC investigation

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Monday, April 07, 2014 4:05 PM

To: Park, Andy

Subject: RE: Solvay PFC investigation

We will be getting the information at the meeting

-----Original Appointment-----

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Monday, April 07, 2014 3:16 PM

To: Bergman, Erica

Subject: Accepted: Solvay PFC investigation

When: Thursday, May 01, 2014 1:30 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).

Where: DEP 401 6TH FL CONF ROOM-6E002-Seats 35

Erica,

I would like to review the recent groundwater and soil data before the meeting. Can they be shared now?

From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Monday, April 07, 2014 4:05 PM

To:

Park, Andy

Subject:

RE: Solvay PFC investigation

We will be getting the information at the meeting

----Original Appointment----

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Monday, April 07, 2014 3:16 PM

To: Bergman, Erica

Subject: Accepted: Solvay PFC investigation

When: Thursday, May 01, 2014 1:30 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).

Where: DEP 401 6TH FL CONF ROOM-6E002-Seats 35

Erica,

I would like to review the recent groundwater and soil data before the meeting. Can they be shared now?

Subject:

Solvay PFC investigation

Location:

DEP 401 6TH FL CONF ROOM-6E002-Seats 35

Start: End: Thu 5/1/2014 1:30 PM Thu 5/1/2014 3:30 PM

Show Time As:

Tentative

Recurrence:

(none)

Organizer:

Bergman, Erica

Solvay Specialty Polymers - Technical discussion/update meeting on the PFC investigation

Agenda Items

- Results from recent sampling of groundwater and soils
- · Air modeling results
- Sampling Plan comments
- Private potable wells sampling
- Sampling of additional Public Supply Wells
- Communication and Reporting

Greg John - would you be available for the discussion on air dispersion modeling?

From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Friday, April 04, 2014 11:27 AM

To:

Park, Andy

Cc:

Azzam, Nidal; Everett, Adolph

Subject:

RE: Solvay - Meeting

Not to my knowledge, this is supposed to be a working technical meeting to discuss current data and a path forward. We are hoping to make this a monthly update meeting, not with upper management.

Erica

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Friday, April 04, 2014 11:05 AM

To: Bergman, Erica

Cc: Azzam, Nidal; Everett, Adolph Subject: RE: Solvay - Meeting

Erica,

John Filippelli, our Division Director, will attend if Michelle Siekirka or Ken Kloo of NJDEP attends. Please advise.

Andy

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, April 04, 2014 10:07 AM

To: Park, Andy

Cc: Azzam, Nidal; Everett, Adolph **Subject:** RE: Solvay - Meeting

Andy,

This is going to be a technical meeting to discuss their recent findings (groundwater, soil and air modeling results), and we will discuss their path forward regarding proposed additional sampling and potable well sampling locations. The DEP case team (geologist and technical coordinator) will attend along with my bureau chief and I.

Erica

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Friday, April 04, 2014 8:06 AM

To: Bergman, Erica

Cc: Azzam, Nidal; Everett, Adolph Subject: RE: Solvay - Meeting

Erica,

May 1 looks good for EPA.

I understand that the meeting is among NJDEP, Solvay and EPA. Please let me know if there is any other entity to be present. It is good to know before the meeting who will attend and what is the agenda. Currently, Adolph, Nidal and I from EPA plan to attend. I will let you know if there is any change.

Thanks,

Andrew Park U.S. EPA Region 2 212-637-4184

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Thursday, April 03, 2014 4:06 PM

To: Park, Andy

Cc: Azzam, Nidal; Everett, Adolph Subject: RE: Solvay - Meeting

Andy,

We spoke with Solvay today about postponing the meeting until May 1, where they propose a discussion on additional environmental data they are collecting and discuss their next steps. Let me know if EPA is available on May 1.

thanks,

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Thursday, April 03, 2014 3:33 PM

To: Bergman, Erica

Cc: Azzam, Nidal; Everett, Adolph

Subject: Solvay - Meeting

Erica,

I was informed earlier that a monthly meeting with Solvay is scheduled for April 16. Please confirm if it is still on.

Thanks,

Andrew Park U.S. EPA Region 2 212-637-4184

From:

Park, Andy

Sent:

Friday, April 04, 2014 11:05 AM

To:

Bergman, Erica

Cc:

Azzam, Nidal; Everett, Adolph

Subject:

RE: Solvay - Meeting

Erica.

John Filippelli, our Division Director, will attend if Michelle Siekirka or Ken Kloo of NJDEP attends. Please advise.

Andy

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, April 04, 2014 10:07 AM

To: Park, Andy

Cc: Azzam, Nidal; Everett, Adolph Subject: RE: Solvay - Meeting

Andy,

This is going to be a technical meeting to discuss their recent findings (groundwater, soil and air modeling results), and we will discuss their path forward regarding proposed additional sampling and potable well sampling locations. The DEP case team (geologist and technical coordinator) will attend along with my bureau chief and I.

Erica

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Friday, April 04, 2014 8:06 AM

To: Bergman, Erica

Cc: Azzam, Nidal; Everett, Adolph Subject: RE: Solvay - Meeting

Erica,

May 1 looks good for EPA.

I understand that the meeting is among NJDEP, Solvay and EPA. Please let me know if there is any other entity to be present. It is good to know before the meeting who will attend and what is the agenda. Currently, Adolph, Nidal and I from EPA plan to attend. I will let you know if there is any change.

Thanks,

Andrew Park U.S. EPA Region 2 212-637-4184

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Thursday, April 03, 2014 4:06 PM

To: Park, Andy

Cc: Azzam, Nidal; Everett, Adolph Subject: RE: Solvay - Meeting

Andy,

We spoke with Solvay today about postponing the meeting until May 1, where they propose a discussion on additional environmental data they are collecting and discuss their next steps. Let me know if EPA is available on May 1.

thanks,

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Thursday, April 03, 2014 3:33 PM

To: Bergman, Erica

Cc: Azzam, Nidal; Everett, Adolph

Subject: Solvay - Meeting

Erica,

I was informed earlier that a monthly meeting with Solvay is scheduled for April 16. Please confirm if it is still on.

Thanks,

Andrew Park U.S. EPA Region 2 212-637-4184

From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Friday, April 04, 2014 10:07 AM

To:

Park, Andy

Cc:

Azzam, Nidal; Everett, Adolph

Subject:

RE: Solvay - Meeting

Andy,

This is going to be a technical meeting to discuss their recent findings (groundwater, soil and air modeling results), and we will discuss their path forward regarding proposed additional sampling and potable well sampling locations. The DEP case team (geologist and technical coordinator) will attend along with my bureau chief and I.

Erica

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Friday, April 04, 2014 8:06 AM

To: Bergman, Erica

Cc: Azzam, Nidal; Everett, Adolph Subject: RE: Solvay - Meeting

Erica,

May 1 looks good for EPA.

I understand that the meeting is among NJDEP, Solvay and EPA. Please let me know if there is any other entity to be present. It is good to know before the meeting who will attend and what is the agenda. Currently, Adolph, Nidal and I from EPA plan to attend. I will let you know if there is any change.

Thanks,

Andrew Park U.S. EPA Region 2 212-637-4184

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Thursday, April 03, 2014 4:06 PM

To: Park, Andy

Cc: Azzam, Nidal; Everett, Adolph **Subject:** RE: Solvay - Meeting

Andy,

We spoke with Solvay today about postponing the meeting until May 1, where they propose a discussion on additional environmental data they are collecting and discuss their next steps. Let me know if EPA is available on May 1.

thanks,

Erica Bergman NJDEP - Bureau of Case Management 401 E. State Street - Mail Code 401-05 P.O. Box 420 Trenton, NJ 08625-0420 erica.bergman@dep.state.nj.us 609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Thursday, April 03, 2014 3:33 PM

To: Bergman, Erica

Cc: Azzam, Nidal; Everett, Adolph Subject: Solvay - Meeting

Erica,

I was informed earlier that a monthly meeting with Solvay is scheduled for April 16. Please confirm if it is still on.

Thanks,

Andrew Park U.S. EPA Region 2 212-637-4184

From:

Park, Andy

Sent:

Friday, April 04, 2014 8:06 AM

To:

Bergman, Erica

Cc:

Azzam, Nidal; Everett, Adolph

Subject:

RE: Solvay - Meeting

Erica,

May 1 looks good for EPA.

I understand that the meeting is among NJDEP, Solvay and EPA. Please let me know if there is any other entity to be present. It is good to know before the meeting who will attend and what is the agenda. Currently, Adolph, Nidal and I from EPA plan to attend. I will let you know if there is any change.

Thanks,

Andrew Park U.S. EPA Region 2 212-637-4184

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Thursday, April 03, 2014 4:06 PM

To: Park, Andy

Cc: Azzam, Nidal; Everett, Adolph Subject: RE: Solvay - Meeting

Andy,

We spoke with Solvay today about postponing the meeting until May 1, where they propose a discussion on additional environmental data they are collecting and discuss their next steps. Let me know if EPA is available on May 1.

thanks,

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]
Sent: Thursday, April 03, 2014 3:33 PM

To: Bergman, Erica

Cc: Azzam, Nidal; Everett, Adolph

Subject: Solvay - Meeting

Erica,

I was informed earlier that a monthly meeting with Solvay is scheduled for April 16. Please confirm if it is still on.

Thanks,

From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Thursday, April 03, 2014 4:06 PM

To:

Park, Andy

Cc:

Azzam, Nidal; Everett, Adolph

Subject:

RE: Solvay - Meeting

Andy,

We spoke with Solvay today about postponing the meeting until May 1, where they propose a discussion on additional environmental data they are collecting and discuss their next steps. Let me know if EPA is available on May 1.

thanks,

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Thursday, April 03, 2014 3:33 PM

To: Bergman, Erica

Cc: Azzam, Nidal; Everett, Adolph

Subject: Solvay - Meeting

Erica,

I was informed earlier that a monthly meeting with Solvay is scheduled for April 16. Please confirm if it is still on.

Thanks,

From:

Park, Andy

Sent:

Thursday, April 03, 2014 3:33 PM

To:

Erica.Bergman@dep.state.nj.us

Cc:

Azzam, Nidal; Everett, Adolph

Subject:

Solvay - Meeting

Erica,

I was informed earlier that a monthly meeting with Solvay is scheduled for April 16. Please confirm if it is still on.

Thanks,

From: Bergman, Erica < Erica.Bergman@dep.state.nj.us>

Sent: Monday, March 31, 2014 2:36 PM

To: Gertz, Mitchell (mitchell.gertz@solvay.com)

Cc: Park, Andy

Subject: Solvay - EPA comments on air input parameters

Mitch,

EPA air program reviewed the air deposition input parameters and have the following comments:

- The AERMOD dispersion model was used in this case which is acceptable. NJDEP ran the AERMET preprocessor and provided the facility with the preprocessed meteorological data that is input to AERMOD. The meteorological data was measured at the National Weather Station in Philadelphia between 1990 to 1994 with concurrent upper air data from Atlantic City and Brookhaven. The time frame and location of the measurements are acceptable. However, it would be advisable to run the model and process the data using the most current version of AERMOD and AERMET. It is not clear which version was used in this case.
- The workplan notes that some of the meteorological parameters that are necessary for deposition modeling (such as precipitation and relative humidity) may be missing from the NJDEP data set. If so, the facility will obtain the additional data and include it in the final report. Again, this is acceptable but AERMET will need to be rerun using the full data set.
- The model plan assumes that all the terrain in the area is flat. If the terrain in the area of impact is below stack height then this may be a reasonable assumption. But if the terrain height exceeds the stack height then the AERMAP preprocessor should also be run using the actual terrain features. AERMOD would then need the actual base elevation of the emission points and of the anemometer. These must be inputted into the model (preferably in meters). The receptor grid would also need to reflect the actual ground elevation.
- There were separate input files for each emission point. It would be preferable to include all the emission points into a single input file so that the cumulative impacts may be better assessed.

Please let us know if you have any questions,

Erica Bergman

NJDEP - Bureau of Case Management

401 E. State Street - Mail Code 401-05

P.O. Box 420

Trenton, NJ 08625-0420

erica.bergman@dep.state.nj.us

609-292-7406

From:

Park, Andy

Sent:

Wednesday, March 26, 2014 4:59 PM

To:

Bergman, Erica

Cc:

Azzam, Nidal

Subject:

RE: Solvay- air modeling results

Attachments:

Solvay modeling

Erica,

Attached please see comments from Annamaria Coulter of our Air Programs. She and I have discussed and agreed that the 1st comment is not valid for this investigation. Please disregard it.

I understand that we will also review the modeling results that Solvay will submit as per the 11/15/13 PFC Work Plan. Additional comments on the input files may be required as part of that review. We may want confirm that with Solvay.

If you have any questions or require more information, please let me know.

Andy

Andrew Park U.S. EPA Region 2 212-637-4184

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 2:09 PM

To: Azzam, Nidal Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Nidal and Andy,

Just to clarify, Solvay is sending input files to use in the air dispersion model. Our DEP air modeler is going to run the model using the input files and make his own assessment.

Is this something EPA is interested in seeing? Solvay now estimates 2 weeks until the files are submitted.

Erica Bergman

NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05

P.O. Box 420

Trenton, NJ 08625-0420

erica.bergman@dep.state.nj.us
609-292-7406

From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov]

Sent: Friday, March 07, 2014 12:26 PM

To: Bergman, Erica

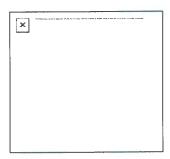
Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Erica.

Our project manager, Andy park, is back from his detail, please include him in your distribution list. Andy id also planing to review the air dispersion modeling. Thank you.

Nidal Azzam, Base Program Management Section, Chief Hazardous Waste Programs Branch Clean Air and Sustainability Division USEPA Region 2 290 Broadway, 22nd Floor New York, NY 10007 212-637-3748 Office 212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 12:05 PM

To: Gertz, Mitchell (mitchell.gertz@solvay.com)

Cc: Azzam, Nidal

Subject: Solvay- air modeling results

Mitch,

As we discussed, Solvay will present the air dispersion modeling results to DEP for review possibly next week. Nidal Azzam at EPA has asked me to request a hard copy and an electronic copy as well for their air program to review.

Please submit this report to Nidal Azzam at the below address:

Nidal Azzam
Base Program Management Section, Chief
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007

thanks, Erica

Erica Bergman NJDEP - Bureau of Case Management 401 E. State Street - Mail Code 401-05 P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

This Email message contained an attachment named image001.jpg

which may be a computer program. This attached computer program could contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at (866) 411-4EPA (4372). The TDD number is (866) 489-4900.

From:

Coulter, Annamaria

Sent:

Wednesday, March 26, 2014 3:49 PM

To: Cc: Park, Andy Riva, Steven

Subject:

Solvay modeling

Andy,

I reviewed the modeling work plan for Solvay dated November 15, 2013 and the AERMOD input files you emailed to me on March 10, 2014. In general, the input files are set up properly for dry deposition and concentration modeling. There are some minor comments that should be noted as discussed below:

- The analysis is limited to particle deposition. It is not clear whether gas phase deposition is important in this process. Could the emissions include semi-volatile organics? If so, then gas deposition should be included in the modeling analysis. This should be discussed further in the workplan.
- The AERMOD dispersion model was used in this case which is acceptable. NJDEP ran the AERMET preprocessor and provided the facility with the preprocessed meteorological data that is input to AERMOD. The meteorological data was measured at the National Weather Station in Philadelphia between 1990 to 1994 with concurrent upper air data from Atlantic City and Brookhaven. The time frame and location of the measurements are acceptable. However, it would be advisable to run the model and process the data using the most current version of AERMOD and AERMET. It is not clear which version was used in this case.
- The workplan notes that some of the meteorological parameters that are necessary for deposition modeling (such as precipitation and relative humidity) may be missing from the NJDEP data set. If so, the facility will obtain the additional data and include it in the final report. Again, this is acceptable but AERMET will need to be rerun using the full data set.
- The model plan assumes that all the terrain in the area is flat. If the terrain in the area of impact is below stack height then this may be a reasonable assumption. But if the terrain height exceeds the stack height then the AERMAP preprocessor should also be run using the actual terrain features. AERMOD would then need the actual base elevation of the emission points and of the anemometer. These must be inputted into the model (preferably in meters). The receptor grid would also need to reflect the actual ground elevation.
- There were separate input files for each emission point. It would be preferable to include all the emission points into a single input file so that the cumulative impacts may be better assessed.

Please let me know if you have any questions. Annamaria Coulter 212-637-4016

From:

Park, Andy

Sent:

Tuesday, March 18, 2014 2:59 PM

To:

Azzam, Nidal; Erica.Bergman@dep.state.nj.us

Subject:

FW: Solvay

From: Park, Andy

Sent: Tuesday, March 18, 2014 2:58 PM

To: Coulter, Annamaria **Subject:** RE: Solvay

Annamaria,

Please provide me with your review by March 26, Wednesday. If NJDEP's review is ready before that, they will send theirs first also informing that EPA's review is forthcoming.

Thanks,

Andrew Park U.S. EPA Region 2 212-637-4184

From: Coulter, Annamaria

Sent: Tuesday, March 18, 2014 2:12 PM

To: Park, Andy Subject: Solvay

Andy,

I just left you a voicemail. I am sorry but I will not be able to give you any comments by today. I was wondering when is that latest that I can get back to you?

Annamaria X4016

From:

Azzam, Nidal

Sent:

Monday, March 17, 2014 5:25 PM

To:

Bergman, Erica

Cc:

Park, Andy

Subject:

RE: Solvay

Erica,

I or we will try to attend. I will get back to you on attendance tomorrow morning. Thank you for the update.

Nidal Azzam, Base Program Management Section, Chief Hazardous Waste Programs Branch Clean Air and Sustainability Division USEPA Region 2 290 Broadway, 22nd Floor New York, NY 10007 212-637-3748 Office 212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Monday, March 17, 2014 4:41 PM

To: Azzam, Nidal Cc: Park, Andy Subject: RE: Solvay

Nidal,

Please see my responses below..

Erica Bergman NJDEP - Bureau of Case Management 401 E. State Street - Mail Code 401-05 P.O. Box 420 Trenton, NJ 08625-0420 erica.bergman@dep.state.nj.us 609-292-7406 From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov]

Sent: Monday, March 17, 2014 12:55 PM

To: Bergman, Erica Cc: Park, Andy Subject: Solvay

Hi Erica,

I got your notification about the cancellation of the conference call.

Solvay and Paulsboro officials are coming to DEP in Trenton to meet with Deputy Commissioner Siekerka to discuss Solvay's Treatability Study on Weds at 10:00. Please let me know if you'd like to attend or conference in (there are several people that can't make it and are conferencing in). I plan to reschedule the monthly technical meeting to discuss progress of other environmental sampling, probably next week some time.

Is there any update on the installation status of the filtration systems at Solvay, Paulsboro PWS, and at Gloucester treatment facility?

The treatment for Paulsboro PWS will be discussed at Wednesday's meeting. In the meantime, Paulsboro water officials have been working on the radium contamination in Well #8. It's possible that this system will be in operation in 2 ½ weeks.

Solvay's GAC filtration system was installed and became active at their plant on 2/14/14 (see attached flow diagram). This is in addition to an exchange resin system present prior to their partial discharge to GCUA. I inquired about levels of PFNA being discharged to the river and GCUA following treatment due to concerns regarding efficiency. See Mitch Gertz's 2/19/14 response below. Also of note, Solvay's NJPDES sampling in Feb would still have untreated water in the system, so March NJPDES sampling event will be the first time we can see results with GAC system in place.

"I am responding to you email of 2/12 concerning the activated carbon treatment system we are installing. This is an interim treatment system that we could install quickly without significant infrastructure modifications to reduce PFC discharges to the Delaware River. We expect that the interim system will remove about 80% of the PFNA currently discharged to the river from our site. Treatment system performance and operational data will be gathered over about a 4 month period to provide data for the design of a final treatment system. Until we obtain operational data we believe it is premature to estimate concentrations of PFNA discharged to the river."

Also I haven't received the updated DOH health advisory fact sheet. Did they issue it?

Not to my knowledge, I think it's still undergoing review. This may also be discussed at the meeting on Wednesday. You can contact Joe Eldridge from DOH for the most up to date status. <u>Joe.Eldridge@doh.state.nj.us</u>

We have an RA briefing tomorrow. The above two items will more likely be asked about.

Nidal Azzam,
Base Program Management Section, Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



From: Bergman, Erica < Erica.Bergman@dep.state.nj.us>

Sent: Monday, March 17, 2014 4:41 PM

To: Azzam, Nidal Cc: Park, Andy Subject: RE: Solvay

Attachments: Water Treatment BFD.pdf

Nidal,

Please see my responses below..

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov]

Sent: Monday, March 17, 2014 12:55 PM

To: Bergman, Erica Cc: Park, Andy Subject: Solvay

Hi Erica.

I got your notification about the cancellation of the conference call.

Solvay and Paulsboro officials are coming to DEP in Trenton to meet with Deputy Commissioner Siekerka to discuss Solvay's Treatability Study on Weds at 10:00. Please let me know if you'd like to attend or conference in (there are several people that can't make it and are conferencing in). I plan to reschedule the monthly technical meeting to discuss progress of other environmental sampling, probably next week some time.

Is there any update on the installation status of the filtration systems at Solvay, Paulsboro PWS, and at Gloucester treatment facility?

The treatment for Paulsboro PWS will be discussed at Wednesday's meeting. In the meantime, Paulsboro water officials have been working on the radium contamination in Well #8. It's possible that this system will be in operation in 2 ½ weeks.

Solvay's GAC filtration system was installed and became active at their plant on 2/14/14 (see attached flow diagram). This is in addition to an exchange resin system present prior to their partial discharge to GCUA. I inquired about levels of PFNA being discharged to the river and GCUA following treatment due to concerns regarding efficiency. See Mitch Gertz's 2/19/14 response

below. Also of note, Solvay's NJPDES sampling in Feb would still have untreated water in the system, so March NJPDES sampling event will be the first time we can see results with GAC system in place.

"I am responding to you email of 2/12 concerning the activated carbon treatment system we are installing. This is an interim treatment system that we could install quickly without significant infrastructure modifications to reduce PFC discharges to the Delaware River. We expect that the interim system will remove about 80% of the PFNA currently discharged to the river from our site. Treatment system performance and operational data will be gathered over about a 4 month period to provide data for the design of a final treatment system. Until we obtain operational data we believe it is premature to estimate concentrations of PFNA discharged to the river."

Also I haven't received the updated DOH health advisory fact sheet. Did they issue it?

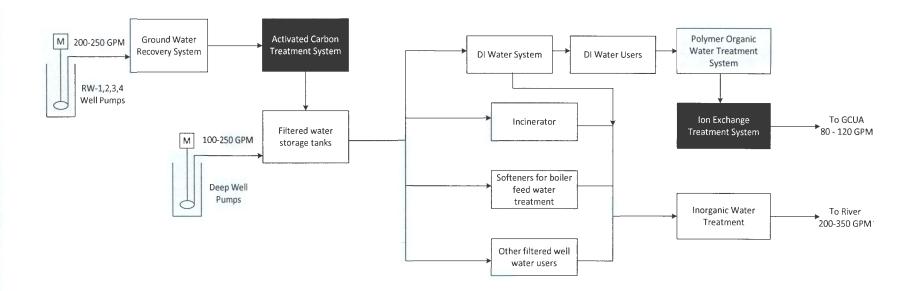
Not to my knowledge, I think it's still undergoing review. This may also be discussed at the meeting on Wednesday. You can contact Joe Eldridge from DOH for the most up to date status. <u>Joe.Eldridge@doh.state.nj.us</u>

We have an RA briefing tomorrow. The above two items will more likely be asked about.

Nidal Azzam,
Base Program Management Section, Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



Planned Surfactant Removal Block Flow Diagram



From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Monday, March 17, 2014 4:41 PM

To:

Azzam, Nidal

Cc:

Park, Andy

Subject:

RE: Solvay

Attachments:

Water Treatment BFD.pdf

Nidal,

Please see my responses below..

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov]

Sent: Monday, March 17, 2014 12:55 PM

To: Bergman, Erica Cc: Park, Andy Subject: Solvay

Hi Erica.

I got your notification about the cancellation of the conference call.

Solvay and Paulsboro officials are coming to DEP in Trenton to meet with Deputy Commissioner Siekerka to discuss Solvay's Treatability Study on Weds at 10:00. Please let me know if you'd like to attend or conference in (there are several people that can't make it and are conferencing in). I plan to reschedule the monthly technical meeting to discuss progress of other environmental sampling, probably next week some time.

Is there any update on the installation status of the filtration systems at Solvay, Paulsboro PWS, and at Gloucester treatment facility?

The treatment for Paulsboro PWS will be discussed at Wednesday's meeting. In the meantime, Paulsboro water officials have been working on the radium contamination in Well #8. It's possible that this system will be in operation in 2 ½ weeks.

Solvay's GAC filtration system was installed and became active at their plant on 2/14/14 (see attached flow diagram). This is in addition to an exchange resin system present prior to their partial discharge to GCUA. I inquired about levels of PFNA being discharged to the river and GCUA following treatment due to concerns regarding efficiency. See Mitch Gertz's 2/19/14 response

below. Also of note, Solvay's NJPDES sampling in Feb would still have untreated water in the system, so March NJPDES sampling event will be the first time we can see results with GAC system in place.

"I am responding to you email of 2/12 concerning the activated carbon treatment system we are installing. This is an interim treatment system that we could install quickly without significant infrastructure modifications to reduce PFC discharges to the Delaware River. We expect that the interim system will remove about 80% of the PFNA currently discharged to the river from our site. Treatment system performance and operational data will be gathered over about a 4 month period to provide data for the design of a final treatment system. Until we obtain operational data we believe it is premature to estimate concentrations of PFNA discharged to the river."

Also I haven't received the updated DOH health advisory fact sheet. Did they issue it?

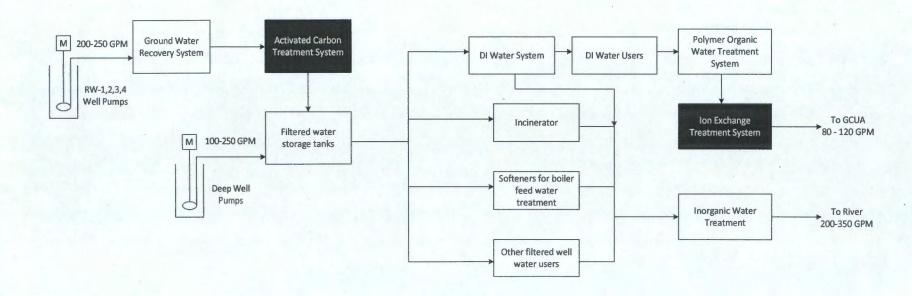
Not to my knowledge, I think it's still undergoing review. This may also be discussed at the meeting on Wednesday. You can contact Joe Eldridge from DOH for the most up to date status. <u>Joe.Eldridge@doh.state.nj.us</u>

We have an RA briefing tomorrow. The above two items will more likely be asked about.

Nidal Azzam, Base Program Management Section, Chief Hazardous Waste Programs Branch Clean Air and Sustainability Division USEPA Region 2 290 Broadway, 22nd Floor New York, NY 10007 212-637-3748 Office 212-637-4437 Fax



Planned Surfactant Removal Block Flow Diagram



From: Bergman, Erica <Erica.Bergman@dep.state.nj.us>

Sent: Monday, March 17, 2014 4:41 PM

To: Azzam, Nidal
Cc: Park, Andy
Subject: RE: Solvay

Attachments: Water Treatment BFD.pdf

Nidal,

Please see my responses below..

Erica Bergman

NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05

P.O. Box 420

Trenton, NJ 08625-0420

erica.bergman@dep.state.nj.us
609-292-7406

From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov]

Sent: Monday, March 17, 2014 12:55 PM

To: Bergman, Erica Cc: Park, Andy Subject: Solvay

Hi Erica.

I got your notification about the cancellation of the conference call.

Solvay and Paulsboro officials are coming to DEP in Trenton to meet with Deputy Commissioner Siekerka to discuss Solvay's Treatability Study on Weds at 10:00. Please let me know if you'd like to attend or conference in (there are several people that can't make it and are conferencing in). I plan to reschedule the monthly technical meeting to discuss progress of other environmental sampling, probably next week some time.

Is there any update on the installation status of the filtration systems at Solvay, Paulsboro PWS, and at Gloucester treatment facility?

The treatment for Paulsboro PWS will be discussed at Wednesday's meeting. In the meantime, Paulsboro water officials have been working on the radium contamination in Well #8. It's possible that this system will be in operation in 2 ½ weeks.

Solvay's GAC filtration system was installed and became active at their plant on 2/14/14 (see attached flow diagram). This is in addition to an exchange resin system present prior to their partial discharge to GCUA. I inquired about levels of PFNA being discharged to the river and GCUA following treatment due to concerns regarding efficiency. See Mitch Gertz's 2/19/14 response

below. Also of note, Solvay's NJPDES sampling in Feb would still have untreated water in the system, so March NJPDES sampling event will be the first time we can see results with GAC system in place.

"I am responding to you email of 2/12 concerning the activated carbon treatment system we are installing. This is an interim treatment system that we could install quickly without significant infrastructure modifications to reduce PFC discharges to the Delaware River. We expect that the interim system will remove about 80% of the PFNA currently discharged to the river from our site. Treatment system performance and operational data will be gathered over about a 4 month period to provide data for the design of a final treatment system. Until we obtain operational data we believe it is premature to estimate concentrations of PFNA discharged to the river."

Also I haven't received the updated DOH health advisory fact sheet. Did they issue it?

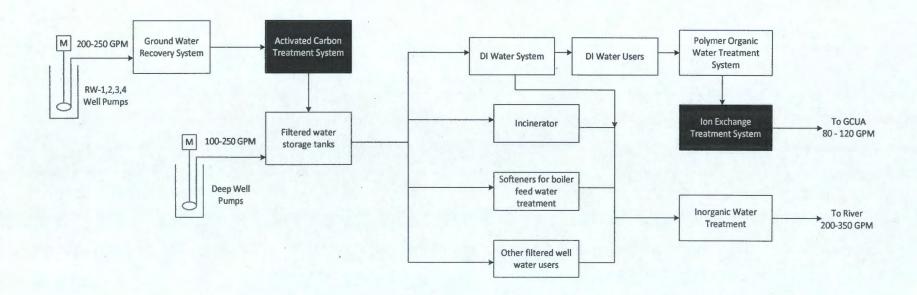
Not to my knowledge, I think it's still undergoing review. This may also be discussed at the meeting on Wednesday. You can contact Joe Eldridge from DOH for the most up to date status. <u>Joe.Eldridge@doh.state.nj.us</u>

We have an RA briefing tomorrow. The above two items will more likely be asked about.

Nidal Azzam,
Base Program Management Section. Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



Planned Surfactant Removal Block Flow Diagram



From:

Azzam, Nidal

Sent:

Monday, March 17, 2014 12:55 PM

To:

Bergman, Erica Park, Andy

Cc: Subject:

Solvay

Hi Erica,

I got your notification about the cancellation of the conference call.

Is there any update on the installation status of the filtration systems at Solvay, Paulsboro PWS, and at Gloucester treatment facility?

Also I haven't received the updated DOH health advisory fact sheet. Did they issue it?

We have an RA briefing tomorrow. The above two items will more likely be asked about.

Nidal Azzam,
Base Program Management Section, Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Tuesday, March 11, 2014 4:30 PM

To: Cc: Coulter, Annamaria Azzam, Nidal; Park, Andy

Subject:

RE: AERMOD Input Files for Solvay PFC Air Emission Modeling

Annamaria,

Please contact Greg John at DEP (and copy me on emails) for information on DEP's evaluation of the air input files.

From: John, Greg

Sent: Tuesday, March 11, 2014 3:08 PM

To: 'Jim Lape'

Cc: Bergman, Erica; 'azzam.nidal@epa.gov'; mitchell.gertz@solvay.com; Philip Goodrum; S. Xiah Kragie

Subject: RE: AERMOD Input Files for Solvay PFC Air Emission Modeling

Jim:

While I appreciate that each PFC source was modeled discretely to characterize the individual dispersion and deposition results for each, I would have liked to also see a modeling run with the cumulative impacts of all four PFC emission sources. Can you provide the BPIP files (i.e., .PIP, .SUM, .TAB, .SO) used to create the input files?

Greg John Research Scientist (609) 633-1106

From: Jim Lape [mailto: jlape@integral-corp.com]

Sent: Monday, March 10, 2014 12:26 PM

To: John, Greg

Cc: Bergman, Erica; 'azzam.nidal@epa.gov'; mitchell.gertz@solvay.com; Philip Goodrum; Jim Lape; S. Xiah Kragie

Subject: AERMOD Input Files for Solvay PFC Air Emission Modeling

Greq:

Attached are the input files for modeling air emissions of perfluoroalkyl compounds (PFCs) from the Solvay Specialty Polymers USA, LLC (Solvay) West Deptford, New Jersey, Plant (Site) located at 10 Leonard Lane in West Deptford Township, Gloucester County, New Jersey. The focus of the air modeling is certain PFCs used historically in manufacturing operations at the Site. The primary objective of the air modeling is to provide estimates of the spatial distribution of concentrations in air and particle deposition to surfaces in the areas surrounding the Site. The results will be used to refine the conceptual site model for PFC fate and transport, and to aid in decisions regarding future environmental sampling. The modeling will use estimated historic air emissions for the period from 1991 to 2010.

We are using the U.S. Environmental Protection Agency AERMOD (Vers. 13350) to conduct the air modeling for the four stacks of interest at the Site. The 2008 to 2012 meteorological dataset for Philadelphia International Airport provided by New Jersey Department of Environmental Protection (NJDEP) is being used for this evaluation. As discussed in the Air Modeling Plan submitted to NJDEP as Appendix C of the Perfluorinated Compounds Work Plan (November 15, 2013) the historic PFC air emission sources have been grouped as either primary or secondary stack sources. Two spray dryer stacks, PT3001 and PT3011, were identified as the primary

PFC sources given they represent the most continuous source of PFC emission to the atmosphere. The secondary sources are stacks that vent tanks along the batch manufacturing process. Emissions from the secondary stacks, PT3002 and PT3004, are intermittent and are released at significantly lower flow rates than from the spray dryer vents

Each of the four stacks was modeled discretely in order to characterize the individual dispersion and deposition patterns. A unit emission rate was used to allow for scaling the model results with the facility-wide annual estimates of PFC air emissions. As noted in the Air Modeling Plan, each spray dryer vented one of two different PFC surfactants (i.e., Surflon or sodium perfluorooctanoate [NaPFO]), while the secondary stacks vented both, depending on the type of batch be processed at any given time. Sensitivity analyses will be conducted to address the contribution each stack could have made to the annual facility-wide PFC air emissions. A table providing the model input stack parameters and the nature of the source and historic emissions is also attached to this email. Please let us know if you have any questions or comments regarding these files.

Thanks

Jim

James Lape | Senior Science Advisor
Integral Consulting Inc. | www.integral-corp.com
200 Harry S. Truman Parkway, Suite 330 | Annapolis, MD 21401
Tel: 410.573.1982, ext. 13 | Cell: 410.897.7006 | Fax: 410.573.9746

HEALTH ENVIRONMENT TECHNOLOGY SUSTAINABILITY

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Tuesday, March 11, 2014 4:19 PM

To: Coulter, Annamaria

Cc: Bergman, Erica; Azzam, Nidal

Subject: RE: AERMOD Input Files for Solvay PFC Air Emission Modeling

Annamaria,

You may contact Erica Bergman of NJDEP. Please cc me any correspondence I may have with NJDEP concerning this review.

Thanks,

Andrew Park U.S. EPA Region 2 212-637-4184

From: Coulter, Annamaria

Sent: Tuesday, March 11, 2014 2:54 PM

To: Park, Andy

Subject: RE: AERMOD Input Files for Solvay PFC Air Emission Modeling

Ok, I will do my best since I'm out on the 13th and 14th. Who are you working with on the modeling in NJDEP?

From: Bergman, Erica < Erica.Bergman@dep.state.nj.us>

Sent: Tuesday, March 11, 2014 3:10 PM

To: Park, Andy

Subject: FW: AERMOD Input Files for Solvay PFC Air Emission Modeling

From: John, Greg

Sent: Tuesday, March 11, 2014 3:08 PM

To: 'Jim Lape'

Cc: Bergman, Erica; 'azzam.nidal@epa.gov'; mitchell.gertz@solvay.com; Philip Goodrum; S. Xiah Kragie

Subject: RE: AERMOD Input Files for Solvay PFC Air Emission Modeling

Jim:

While I appreciate that each PFC source was modeled discretely to characterize the individual dispersion and deposition results for each, I would have liked to also see a modeling run with the cumulative impacts of all four PFC emission sources. Can you provide the BPIP files (i.e., .PIP, .SUM, .TAB, .SO) used to create the input files?

Greg John Research Scientist (609) 633-1106

From: Jim Lape [mailto:jlape@integral-corp.com]

Sent: Monday, March 10, 2014 12:26 PM

To: John, Greg

Cc: Bergman, Erica; 'azzam.nidal@epa.gov'; mitchell.gertz@solvay.com; Philip Goodrum; Jim Lape; S. Xiah Kragie

Subject: AERMOD Input Files for Solvay PFC Air Emission Modeling

Greg:

Attached are the input files for modeling air emissions of perfluoroalkyl compounds (PFCs) from the Solvay Specialty Polymers USA, LLC (Solvay) West Deptford, New Jersey, Plant (Site) located at 10 Leonard Lane in West Deptford Township, Gloucester County, New Jersey. The focus of the air modeling is certain PFCs used historically in manufacturing operations at the Site. The primary objective of the air modeling is to provide estimates of the spatial distribution of concentrations in air and particle deposition to surfaces in the areas surrounding the Site. The results will be used to refine the conceptual site model for PFC fate and transport, and to aid in decisions regarding future environmental sampling. The modeling will use estimated historic air emissions for the period from 1991 to 2010.

We are using the U.S. Environmental Protection Agency AERMOD (Vers. 13350) to conduct the air modeling for the four stacks of interest at the Site. The 2008 to 2012 meteorological dataset for Philadelphia International Airport provided by New Jersey Department of Environmental Protection (NJDEP) is being used for this evaluation. As discussed in the Air Modeling Plan submitted to NJDEP as Appendix C of the Perfluorinated Compounds Work Plan (November 15, 2013) the historic PFC air emission sources have been grouped as either primary or secondary stack sources. Two spray dryer stacks, PT3001 and PT3011, were identified as the primary PFC sources given they represent the most continuous source of PFC emission to the atmosphere. The secondary sources are stacks that vent tanks along the batch manufacturing process. Emissions from the secondary stacks, PT3002 and PT3004, are intermittent and are released at significantly lower flow rates than from the spray dryer vents.

Each of the four stacks was modeled discretely in order to characterize the individual dispersion and deposition patterns. A unit emission rate was used to allow for scaling the model results with the facility-wide annual estimates of PFC air emissions. As noted in the *Air Modeling Plan*, each spray dryer vented one of two different PFC surfactants (i.e., Surflon or sodium perfluorooctanoate [NaPFO]), while the secondary stacks vented both, depending on the type of batch be processed at any given time. Sensitivity analyses will be conducted to address the contribution each stack could have made to the annual facility-wide PFC air emissions. A table providing the model input stack parameters and the nature of the source and historic emissions is also attached to this email.

Please let us know if you have any questions or comments regarding these files.

Thanks

Jim

James Lape | Senior Science Advisor | Integral Consulting Inc. | www.integral-corp.com 200 Harry S. Truman Parkway, Suite 330 | Annapolis, MD 21401 Tel: 410.573.1982, ext. 13 | Cell: 410.897.7006 | Fax: 410.573.9746

HEALTH ENVIRONMENT TECHNOLOGY SUSTAMMABILITY

From: Park, Andy

Sent: Tuesday, March 11, 2014 2:58 PM

To: Bergman, Erica
Cc: Azzam, Nidal

Subject: RE: Solvay- air modeling results

Erica,

Our Air Program technical staff will try to accommodate the timetable. She wants to know the State counterpart she can work with for the review. Any one you can suggest?

Andy

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Tuesday, March 11, 2014 2:36 PM

To: Park, Andy Cc: Azzam, Nidal

Subject: RE: Solvay- air modeling results

Andy,

Solvay is only submitting the input files, they don't have plans to submit to submit results until DEP/EPA have commented on the input files. We are trying to expedite the review of the files so that Solvay can use the results to target areas for private well/non-community and even additional public supply well sampling. I am hoping to get comments to Solvay within the next week or so.

Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Tuesday, March 11, 2014 1:54 PM

To: Bergman, Erica **Cc:** Azzam, Nidal

Subject: RE: Solvay- air modeling results

Erica,

I understand that the Air Dispersion Modeling results are expected to be submitted next week at the latest. It seems efficient to perform our review on the entire model including the modeling, the input files, and the results. Do you have any timeframe in your mind on how soon the review needs to be completed by.

Thanks,

Andrew Park U.S. EPA Region 2 212-637-4184

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Tuesday, March 11, 2014 11:26 AM

To: Park, Andy Cc: Azzam, Nidal

Subject: RE: Solvay- air modeling results

Can you forward the Nov 2013 Solvay PFC investigation workplan to the air program? In addition to the location of the plant, there is some information on proposed air modeling. If there are still questions, please pass them along.

thanks, Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Tuesday, March 11, 2014 9:28 AM

To: Bergman, Erica Cc: Azzam, Nidal

Subject: RE: Solvay- air modeling results

Erica.

Please see below review of the input files by our Air Program office. Can you get us information needed?

The files do not give enough information for me to give any advice. Is there a modeling protocol that describes the project and its location so that I can see if the input files are set up correctly? One thing that jumps up is that each stack is modeled separately. These should be combined into one input file. I see they are using Philadelphia airport and Sterling meteorological data but I do not know the source's location so I cannot say that the meteorological data is representative of the source. One comment I noticed is that the "profbase" is set at 0.0 feet. This is supposed to be the base elevation of the anemometer. I doubt Philadelphia airport is at sea level. I think I would need the full modeling analysis and description in order to review. To answer your question on fenceline, this is usually determined from the blue print.

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 2:09 PM

To: Azzam, Nidal Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Nidal and Andy,

Just to clarify, Solvay is sending input files to use in the air dispersion model. Our DEP air modeler is going to run the model using the input files and make his own assessment.

Is this something EPA is interested in seeing? Solvay now estimates 2 weeks until the files are submitted.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov]

Sent: Friday, March 07, 2014 12:26 PM

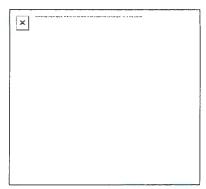
To: Bergman, Erica Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Erica,

Our project manager, Andy park, is back from his detail, please include him in your distribution list. Andy id also planing to review the air dispersion modeling. Thank you.

Nidal Azzam,
Base Program Management Section, Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 12:05 PM

To: Gertz, Mitchell (mitchell.gertz@solvay.com)

Cc: Azzam, Nidal

Subject: Solvay- air modeling results

Mitch.

As we discussed, Solvay will present the air dispersion modeling results to DEP for review possibly next week. Nidal Azzam at EPA has asked me to request a hard copy and an electronic copy as well for their air program to review.

Please submit this report to Nidal Azzam at the below address:

Nidal Azzam
Base Program Management Section, Chief
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007

thanks, Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

This Email message contained an attachment named image001.jpg which may be a computer program. This attached computer program could contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at $(866)\ 411-4$ EPA (4372). The TDD number is $(866)\ 489-4900$.

From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us >

Sent:

Tuesday, March 11, 2014 2:36 PM

To:

Park, Andy

Cc:

Azzam, Nidal

Subject:

RE: Solvay- air modeling results

Andy,

Solvay is only submitting the input files, they don't have plans to submit to submit results until DEP/EPA have commented on the input files. We are trying to expedite the review of the files so that Solvay can use the results to target areas for private well/non-community and even additional public supply well sampling. I am hoping to get comments to Solvay within the next week or so.

Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Tuesday, March 11, 2014 1:54 PM

To: Bergman, Erica Cc: Azzam, Nidal

Subject: RE: Solvay- air modeling results

Erica.

I understand that the Air Dispersion Modeling results are expected to be submitted next week at the latest. It seems efficient to perform our review on the entire model including the modeling, the input files, and the results. Do you have any timeframe in your mind on how soon the review needs to be completed by.

Thanks,

Andrew Park U.S. EPA Region 2 212-637-4184

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Tuesday, March 11, 2014 11:26 AM

To: Park, Andy Cc: Azzam, Nidal

Subject: RE: Solvay- air modeling results

Can you forward the Nov 2013 Solvay PFC investigation workplan to the air program? In addition to the location of the plant, there is some information on proposed air modeling. If there are still questions, please pass them along.

thanks, Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Tuesday, March 11, 2014 9:28 AM

To: Bergman, Erica Cc: Azzam, Nidal

Subject: RE: Solvay- air modeling results

Erica,

Please see below review of the input files by our Air Program office. Can you get us information needed?

The files do not give enough information for me to give any advice. Is there a modeling protocol that describes the project and its location so that I can see if the input files are set up correctly? One thing that jumps up is that each stack is modeled separately. These should be combined into one input file. I see they are using Philadelphia airport and Sterling meteorological data but I do not know the source's location so I cannot say that the meteorological data is representative of the source. One comment I noticed is that the "profbase" is set at 0.0 feet. This is supposed to be the base elevation of the anemometer. I doubt Philadelphia airport is at sea level. I think I would need the full modeling analysis and description in order to review. To answer your question on fenceline, this is usually determined from the blue print.

Andrew Park U.S. EPA Region 2 212-637-4184

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 2:09 PM

To: Azzam, Nidal Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Nidal and Andy,

Just to clarify, Solvay is sending input files to use in the air dispersion model. Our DEP air modeler is going to run the model using the input files and make his own assessment.

Is this something EPA is interested in seeing? Solvay now estimates 2 weeks until the files are submitted.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov]

Sent: Friday, March 07, 2014 12:26 PM

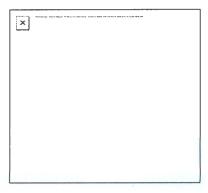
To: Bergman, Erica Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Erica,

Our project manager, Andy park, is back from his detail, please include him in your distribution list. Andy id also planing to review the air dispersion modeling. Thank you.

Nidal Azzam, Base Program Management Section, Chief Hazardous Waste Programs Branch Clean Air and Sustainability Division USEPA Region 2 290 Broadway, 22nd Floor New York, NY 10007 212-637-3748 Office 212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 12:05 PM

To: Gertz, Mitchell (mitchell.gertz@solvay.com)

Cc: Azzam, Nidal

Subject: Solvay- air modeling results

Mitch,

As we discussed, Solvay will present the air dispersion modeling results to DEP for review possibly next week. Nidal Azzam at EPA has asked me to request a hard copy and an electronic copy as well for their air program to review.

Please submit this report to Nidal Azzam at the below address:

Nidal Azzam
Base Program Management Section, Chief
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007

thanks, Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

This Email message contained an attachment named image001.jpg which may be a computer program. This attached computer program could contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at (866) 411-4EPA (4372). The TDD number is (866) 489-4900.

From: Park, Andy

Sent: Tuesday, March 11, 2014 1:54 PM

To: Bergman, Erica Cc: Azzam, Nidal

Subject: RE: Solvay- air modeling results

Erica,

I understand that the Air Dispersion Modeling results are expected to be submitted next week at the latest. It seems efficient to perform our review on the entire model including the modeling, the input files, and the results. Do you have any timeframe in your mind on how soon the review needs to be completed by.

Thanks,

Andrew Park U.S. EPA Region 2 212-637-4184

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Tuesday, March 11, 2014 11:26 AM

To: Park, Andy Cc: Azzam, Nidal

Subject: RE: Solvay- air modeling results

Can you forward the Nov 2013 Solvay PFC investigation workplan to the air program? In addition to the location of the plant, there is some information on proposed air modeling. If there are still questions, please pass them along.

thanks, Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Tuesday, March 11, 2014 9:28 AM

To: Bergman, Erica Cc: Azzam, Nidal

Subject: RE: Solvay- air modeling results

Erica,

Please see below review of the input files by our Air Program office. Can you get us information needed?

The files do not give enough information for me to give any advice. Is there a modeling protocol that describes the project and its location so that I can see if the input files are set up correctly? One thing that jumps up is that each stack is modeled separately. These should be combined into one input file. I see they are using Philadelphia airport and Sterling meteorological data but I do not know the source's location so I cannot say that the meteorological data is representative of the source. One comment I noticed is that the "profbase" is set at 0.0 feet. This is supposed to be the base elevation of the anemometer. I doubt Philadelphia airport is at sea level. I think I would need the full modeling analysis and description in order to review. To answer your question on fenceline, this is usually determined from the blue print.

Andrew Park U.S. EPA Region 2 212-637-4184

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 2:09 PM

To: Azzam, Nidal Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Nidal and Andy,

Just to clarify, Solvay is sending input files to use in the air dispersion model. Our DEP air modeler is going to run the model using the input files and make his own assessment.

Is this something EPA is interested in seeing? Solvay now estimates 2 weeks until the files are submitted.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov]

Sent: Friday, March 07, 2014 12:26 PM

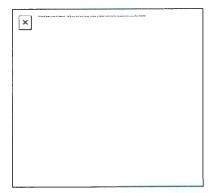
To: Bergman, Erica Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Erica,

Our project manager, Andy park, is back from his detail, please include him in your distribution list. Andy id also planing to review the air dispersion modeling. Thank you.

Nidal Azzam, Base Program Management Section, Chief Hazardous Waste Programs Branch Clean Air and Sustainability Division USEPA Region 2 290 Broadway, 22nd Floor New York, NY 10007 212-637-3748 Office 212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 12:05 PM

To: Gertz, Mitchell (mitchell.gertz@solvay.com)

Cc: Azzam, Nidal

Subject: Solvay- air modeling results

Mitch,

As we discussed, Solvay will present the air dispersion modeling results to DEP for review possibly next week. Nidal Azzam at EPA has asked me to request a hard copy and an electronic copy as well for their air program to review.

Please submit this report to Nidal Azzam at the below address:

Nidal Azzam Base Program Management Section, Chief USEPA Region 2 290 Broadway, 22nd Floor New York, NY 10007

thanks, Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

******************** ATTACHMENT NOT DELIVERED ***************

This Email message contained an attachment named

image001.jpg

which may be a computer program. This attached computer program could contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at $(866)\ 411-4$ EPA (4372). The TDD number is $(866)\ 489-4900$.

From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Tuesday, March 11, 2014 11:26 AM

To:

Park, Andy Azzam, Nidal

Cc: Subject:

RE: Solvay- air modeling results

Can you forward the Nov 2013 Solvay PFC investigation workplan to the air program? In addition to the location of the plant, there is some information on proposed air modeling. If there are still questions, please pass them along.

thanks, Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Tuesday, March 11, 2014 9:28 AM

To: Bergman, Erica **Cc:** Azzam, Nidal

Subject: RE: Solvay- air modeling results

Erica,

Please see below review of the input files by our Air Program office. Can you get us information needed?

The files do not give enough information for me to give any advice. Is there a modeling protocol that describes the project and its location so that I can see if the input files are set up correctly? One thing that jumps up is that each stack is modeled separately. These should be combined into one input file. I see they are using Philadelphia airport and Sterling meteorological data but I do not know the source's location so I cannot say that the meteorological data is representative of the source. One comment I noticed is that the "profbase" is set at 0.0 feet. This is supposed to be the base elevation of the anemometer. I doubt Philadelphia airport is at sea level. I think I would need the full modeling analysis and description in order to review. To answer your question on fenceline, this is usually determined from the blue print.

Andrew Park U.S. EPA Region 2 212-637-4184

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 2:09 PM

To: Azzam, Nidal Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Nidal and Andy,

Just to clarify, Solvay is sending input files to use in the air dispersion model. Our DEP air modeler is going to run the model using the input files and make his own assessment.

Is this something EPA is interested in seeing? Solvay now estimates 2 weeks until the files are submitted.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov]

Sent: Friday, March 07, 2014 12:26 PM

To: Bergman, Erica Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Erica,

Our project manager, Andy park, is back from his detail, please include him in your distribution list. Andy id also planing to review the air dispersion modeling. Thank you.

Nidal Azzam,
Base Program Management Section, Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 12:05 PM

To: Gertz, Mitchell (mitchell.gertz@solvay.com)

Cc: Azzam, Nidal

Subject: Solvay- air modeling results

Mitch,

As we discussed, Solvay will present the air dispersion modeling results to DEP for review possibly next week. Nidal Azzam at EPA has asked me to request a hard copy and an electronic copy as well for their air program to review.

Please submit this report to Nidal Azzam at the below address:

Nidal Azzam Base Program Management Section, Chief USEPA Region 2 290 Broadway, 22nd Floor New York, NY 10007

thanks, Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

This Email message contained an attachment named image001.jpg which may be a computer program. This attached computer program could contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at (866) 411-4EPA (4372). The TDD number is (866) 489-4900.

From:

Park, Andy

Sent:

Tuesday, March 11, 2014 9:27 AM

To: Cc: Bergman, Erica Azzam, Nidal

Subject:

RE: Solvay- air modeling results

Erica,

Please see below review of the input files by our Air Program office. Can you get us information needed?

The files do not give enough information for me to give any advice. Is there a modeling protocol that describes the project and its location so that I can see if the input files are set up correctly? One thing that jumps up is that each stack is modeled separately. These should be combined into one input file. I see they are using Philadelphia airport and Sterling meteorological data but I do not know the source's location so I cannot say that the meteorological data is representative of the source. One comment I noticed is that the "profbase" is set at 0.0 feet. This is supposed to be the base elevation of the anemometer. I doubt Philadelphia airport is at sea level. I think I would need the full modeling analysis and description in order to review. To answer your question on fenceline, this is usually determined from the blue print.

Andrew Park U.S. EPA Region 2 212-637-4184

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 2:09 PM

To: Azzam, Nidal Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Nidal and Andy,

Just to clarify, Solvay is sending input files to use in the air dispersion model. Our DEP air modeler is going to run the model using the input files and make his own assessment.

Is this something EPA is interested in seeing? Solvay now estimates 2 weeks until the files are submitted.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov]

Sent: Friday, March 07, 2014 12:26 PM

To: Bergman, Erica Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Erica,

Our project manager, Andy park, is back from his detail, please include him in your distribution list. Andy id also planing to review the air dispersion modeling. Thank you.

Nidal Azzam,
Base Program Management Section, Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 12:05 PM

To: Gertz, Mitchell (mitchell.gertz@solvay.com)

Cc: Azzam, Nidal

Subject: Solvay- air modeling results

Mitch,

As we discussed, Solvay will present the air dispersion modeling results to DEP for review possibly next week. Nidal Azzam at EPA has asked me to request a hard copy and an electronic copy as well for their air program to review.

Please submit this report to Nidal Azzam at the below address:

Nidal Azzam
Base Program Management Section, Chief
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007

thanks, Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

******************* ATTACHMENT NOT DELIVERED **************

This Email message contained an attachment named image001.jpg

which may be a computer program. This attached computer program could contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at (866) 411-4EPA (4372). The TDD number is (866) 489-4900.

From:

Park, Andy

Sent:

Tuesday, March 11, 2014 8:52 AM

To:

Erica.Bergman@dep.state.nj.us

Cc:

Azzam, Nidal

Subject:

FW: Solvay- air modeling results

Erica,

This is to request that I also receive a copy of correspondence that will be provided to EPA either by NJDEP or Solvay/their consultants, concerning Solvay's actions in relation to PFCs and site remediation. Thank you.

Andrew Park U.S. EPA Region 2 212-637-4184

From: Azzam, Nidal

Sent: Friday, March 07, 2014 12:26 PM

To: Bergman, Erica Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Erica,

Our project manager, Andy park, is back from his detail, please include him in your distribution list. Andy id also planing to review the air dispersion modeling. Thank you.

Nidal Azzam,
Base Program Management Section, Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 12:05 PM

To: Gertz, Mitchell (mitchell.gertz@solvay.com)

Cc: Azzam, Nidal

Subject: Solvay- air modeling results

Mitch,

As we discussed, Solvay will present the air dispersion modeling results to DEP for review possibly next week. Nidal Azzam at EPA has asked me to request a hard copy and an electronic copy as well for their air program to review.

Please submit this report to Nidal Azzam at the below address:

Nidal Azzam Base Program Management Section, Chief USEPA Region 2 290 Broadway, 22nd Floor New York, NY 10007

thanks, Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Monday, March 10, 2014 3:13 PM

To:

Park, Andy

Subject:

FW: Solvay

Attachments:

Penwalt_PI#015010 Purveyor Well Names (2).pdf

I forgot to include attachment....

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Bergman, Erica

Sent: Monday, March 10, 2014 3:12 PM

To: 'Park, Andy' Subject: RE: Solvay

See responses below in CAPS.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Monday, March 10, 2014 1:19 PM

To: Bergman, Erica Subject: Solvay

Erica,

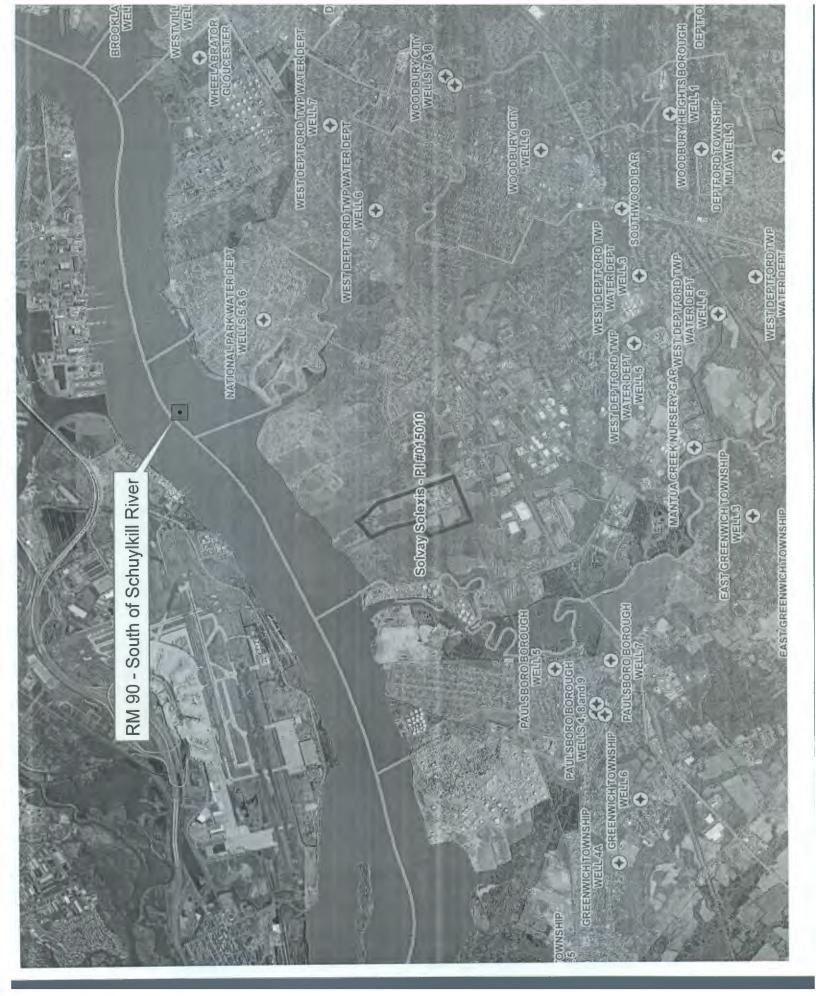
Here is a snapshot, as I understand, of the current status of the investigations. Please correct me if I am wrong: Solvay has submitted 6 PWS sampling reports, out of the 7 targeted YES- GREENWICH SAMPLING REPORT TO BE SUBMITTED BY MID TO LATE NEXT WEEK, ; the air dispersion modeling report – INPUT FILES SUBMITTED TO ME TODAY (NIDAL AZZAM COPIED), the on-site gw sampling report, and the sw/sediment sampling report (THERE WILL BE ONE SAMPLING

REPORT SUBMITTED FOLLOWING COMPLETION OF ALL SAMPLING. THEIR SAMPLING PLAN HAS STILL NOT BEEN APPROVED, DEP HAS ISSUED A LENGTHY COMMENT LETTER (16 PAGES), SO WE ARE AWAITING RESPONSES TO COMMENTS, ESPECIALLY REGARDING SEDIMENT, SURFACE WATER. are still to be submitted; it appears that a need of off-site gw sampling targeting private wells, public non-community wells, and other PWSs is to be further discussed. SOLVAY IS WAITING FOR OFFSITE GROUNDWATER MW DATA AND AIR MODELING TO HELP THEM TARGET LOCATIONS TO START SAMPLING PRIVATE, NON-COMMUNITY AND OTHER PUBLIC WATER SYSTEMS. SINCE THEY ARE SAMPLING GW THIS WEEK, THEY SHOULD HAVE RESULTS BY MID-APRIL.

We need a map showing all the sampling results that have been gathered so far. WE ONLY HAVE PUBLIC SUPPLY WELL SAMPLE RESULTS AND NJPDES EFFLUENT RESULTS SO FAR. It is quite cumbersome to go back and forth between the maps in the work plan and the results of the sampling reports. Is it something that NJDEP can share with us or can we have Solvay/their consultants prepare and submit? I would like to have it within a next few days, hopefully by March 12, 2014, Wednesday, at the latest. I HAVE BEEN USING MY GIS MAP (ATTACHED) TO LOCATE PWS WELLS SAMPLED. I HAVE ASKED SOLVAY TO SUBMIT A SPREADSHEET WITH ALL DATA, BUT THEY HAVE NOT COMMITTED TO DO SO. I AM HOPING TO HAVE SEVERAL OPPORTUNITIES TO REQUEST THIS AND A FIGURE FORMALLY IN MEETINGS OVER THE NEXT COUPLE OF WEEKS, I WILL ASK SOLVAY TO COPY YOU ON ANY SPREADSHEETS OR FIGURES. In addition, the submittals of the PFC effluent sampling results, obtained as part of the NJPDES Permit (NJ0005185), do not provide information concerning the effluent/influent sampling locations. The locations also need to be included in a map. THIS DATA IS BEING REPORTED IN ACCORDANCE WITH THEIR NJPDES PERMIT, AND NOT MY OFFICE, THEY ARE NOT REQUIRED TO SUBMIT A FIGURE FOR NJPDES PERMITTING (PFCS ARE NOT IN THEIR PERMIT, SOLVAY SAMPLED FOR PFCs AT THEIR REQUEST). Otherwise, can you please provide a description of where the sampling locations were? SOLVAY HAS ONE OUTFALL LOCATED ON THE DELAWARE RIVER It appears that the POTW outfall, as in Figure 2 of the 11/15/13 work plan, refers to the Gloucester County MUA. THAT IS CORRECT. Otherwise, let me know. I would appreciate it if you can get back to me.

Thanks, Andy

Andrew Park
Hazardous Waste Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184
park.andy@epa.gov



From: Bergman, Erica < Erica.Bergman@dep.state.nj.us>

Sent: Monday, March 10, 2014 3:12 PM

To: Park, Andy Subject: RE: Solvay

See responses below in CAPS.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]

Sent: Monday, March 10, 2014 1:19 PM

To: Bergman, Erica Subject: Solvay

Erica,

Here is a snapshot, as I understand, of the current status of the investigations. Please correct me if I am wrong: Solvay has submitted 6 PWS sampling reports, out of the 7 targeted YES- GREENWICH SAMPLING REPORT TO BE SUBMITTED BY MID TO LATE NEXT WEEK, ; the air dispersion modeling report – INPUT FILES SUBMITTED TO ME TODAY (NIDAL AZZAM COPIED), the on-site gw sampling report, and the sw/sediment sampling report (THERE WILL BE ONE SAMPLING REPORT SUBMITTED FOLLOWING COMPLETION OF ALL SAMPLING. THEIR SAMPLING PLAN HAS STILL NOT BEEN APPROVED, DEP HAS ISSUED A LENGTHY COMMENT LETTER (16 PAGES), SO WE ARE AWAITING RESPONSES TO COMMENTS, ESPECIALLY REGARDING SEDIMENT, SURFACE WATER. are still to be submitted; it appears that a need of off-site gw sampling targeting private wells, public non-community wells, and other PWSs is to be further discussed. SOLVAY IS WAITING FOR OFFSITE GROUNDWATER MW DATA AND AIR MODELING TO HELP THEM TARGET LOCATIONS TO START SAMPLING PRIVATE, NON-COMMUNITY AND OTHER PUBLIC WATER SYSTEMS. SINCE THEY ARE SAMPLING GW THIS WEEK, THEY SHOULD HAVE RESULTS BY MID-APRIL.

We need a map showing all the sampling results that have been gathered so far. WE ONLY HAVE PUBLIC SUPPLY WELL SAMPLE RESULTS AND NJPDES EFFLUENT RESULTS SO FAR. It is quite cumbersome to go back and forth between the maps in the work plan and the results of the sampling reports. Is it something that NJDEP can share with us or can we have Solvay/their consultants prepare and submit? I would like to have it within a next few days, hopefully by March 12, 2014, Wednesday, at the latest. I HAVE BEEN USING MY GIS MAP (ATTACHED) TO LOCATE PWS WELLS SAMPLED. I HAVE ASKED SOLVAY TO SUBMIT A SPREADSHEET WITH ALL DATA, BUT THEY HAVE NOT COMMITTED TO DO SO. I AM HOPING TO HAVE SEVERAL OPPORTUNITIES TO REQUEST THIS AND A FIGURE FORMALLY IN MEETINGS OVER THE NEXT COUPLE OF WEEKS, I WILL ASK SOLVAY TO COPY YOU ON ANY SPREADSHEETS OR FIGURES. In addition, the submittals of the PFC effluent sampling results, obtained as part of the NJPDES Permit (NJ0005185), do not provide information concerning the effluent/influent sampling locations. The locations also need to be included in a map. THIS DATA IS BEING REPORTED IN ACCORDANCE WITH THEIR NJPDES PERMIT, AND NOT MY OFFICE, THEY ARE NOT REQUIRED TO

SUBMIT A FIGURE FOR NJPDES PERMITTING (PFCS ARE NOT IN THEIR PERMIT, SOLVAY SAMPLED FOR PFCs AT THEIR REQUEST). Otherwise, can you please provide a description of where the sampling locations were? SOLVAY HAS ONE OUTFALL LOCATED ON THE DELAWARE RIVER It appears that the POTW outfall, as in Figure 2 of the 11/15/13 work plan, refers to the Gloucester County MUA. THAT IS CORRECT. Otherwise, let me know. I would appreciate it if you can get back to me.

Thanks, Andy

Andrew Park
Hazardous Waste Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184
park.andy@epa.gov

From:

Park, Andy

Sent:

Monday, March 10, 2014 1:19 PM

To:

Erica. Bergman @dep. state. nj. us

Subject:

Solvay

Erica,

Here is a snapshot, as I understand, of the current status of the investigations. Please correct me if I am wrong: Solvay has submitted 6 PWS sampling reports, out of the 7 targeted; the air dispersion modeling report, the on-site gw sampling report, and the sw/sediment sampling report are still to be submitted; it appears that a need of off-site gw sampling targeting private wells, public non-community wells, and other PWSs is to be further discussed.

We need a map showing all the sampling results that have been gathered so far. It is quite cumbersome to go back and forth between the maps in the work plan and the results of the sampling reports. Is it something that NJDEP can share with us or can we have Solvay/their consultants prepare and submit? I would like to have it within a next few days, hopefully by March 12, 2014, Wednesday, at the latest. In addition, the submittals of the PFC effluent sampling results, obtained as part of the NJPDES Permit (NJ0005185), do not provide information concerning the effluent/influent sampling locations. The locations also need to be included in a map. Otherwise, can you please provide a description of where the sampling locations were? It appears that the POTW outfall, as in Figure 2 of the 11/15/13 work plan, refers to the Gloucester County MUA. Otherwise, let me know. I would appreciate it if you can get back to me.

Thanks, Andy

Andrew Park
Hazardous Waste Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184
park.andy@epa.gov

From: Azzam, Nidal

Sent: Friday, March 07, 2014 2:11 PM

To: Bergman, Erica Park, Andy Cc:

RE: Solvay- air modeling results Subject:

Erica,

Yes, our air programs branch can use the input files. Thank you

Nidal Azzam, Base Program Management Section, Chief Hazardous Waste Programs Branch Clean Air and Sustainability Division **USEPA** Region 2 290 Broadway, 22nd Floor New York, NY 10007 212-637-3748 Office 212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 2:09 PM

To: Azzam, Nidal Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Nidal and Andy,

Just to clarify, Solvay is sending input files to use in the air dispersion model. Our DEP air modeler is going to run the model using the input files and make his own assessment.

Is this something EPA is interested in seeing? Solvay now estimates 2 weeks until the files are submitted.

Erica Bergman

NJDEP - Bureau of Case Management 401 E. State Street - Mail Code 401-05 P.O. Box 420

Trenton, NJ 08625-0420

erica.bergman@dep.state.nj.us

609-292-7406

From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov]

Sent: Friday, March 07, 2014 12:26 PM

To: Bergman, Erica Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Erica,

Our project manager, Andy park, is back from his detail, please include him in your distribution list. Andy id also planing to review the air dispersion modeling. Thank you.

Nidal Azzam,
Base Program Management Section, Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 12:05 PM

To: Gertz, Mitchell (mitchell.gertz@solvay.com)

Cc: Azzam, Nidal

Subject: Solvay- air modeling results

Mitch,

As we discussed, Solvay will present the air dispersion modeling results to DEP for review possibly next week. Nidal Azzam at EPA has asked me to request a hard copy and an electronic copy as well for their air program to review.

Please submit this report to Nidal Azzam at the below address:

Nidal Azzam Base Program Management Section, Chief USEPA Region 2 290 Broadway, 22nd Floor New York, NY 10007

thanks, Erica

Erica Bergman NJDEP - Bureau of Case Management 401 E. State Street - Mail Code 401-05 P.O. Box 420

Trenton, NJ 08625-0420 <u>erica.bergman@dep.state.nj.us</u> 609-292-7406

This Email message contained an attachment named image001.jpg

which may be a computer program. This attached computer program could contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at $(866)\ 411-4$ EPA (4372). The TDD number is $(866)\ 489-4900$.

From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Friday, March 07, 2014 2:09 PM

To:

Azzam, Nidal Park, Andy

Cc: Subject:

RE: Solvay- air modeling results

Nidal and Andy,

Just to clarify, Solvay is sending input files to use in the air dispersion model. Our DEP air modeler is going to run the model using the input files and make his own assessment.

Is this something EPA is interested in seeing? Solvay now estimates 2 weeks until the files are submitted.

Erica Bergman

NJDEP - Bureau of Case Management 401 E. State Street - Mail Code 401-05 P.O. Box 420 Trenton, NJ 08625-0420 erica.bergman@dep.state.nj.us 609-292-7406

From: Azzam, Nidal [mailto:Azzam.Nidal@epa.gov]

Sent: Friday, March 07, 2014 12:26 PM

To: Bergman, Erica **Cc:** Park, Andy

Subject: RE: Solvay- air modeling results

Erica,

Our project manager, Andy park, is back from his detail, please include him in your distribution list. Andy id also planing to review the air dispersion modeling. Thank you.

Nidal Azzam,
Base Program Management Section, Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 12:05 PM

To: Gertz, Mitchell (mitchell.gertz@solvay.com)

Cc: Azzam, Nidal

Subject: Solvay- air modeling results

Mitch,

As we discussed, Solvay will present the air dispersion modeling results to DEP for review possibly next week. Nidal Azzam at EPA has asked me to request a hard copy and an electronic copy as well for their air program to review.

Please submit this report to Nidal Azzam at the below address:

Nidal Azzam
Base Program Management Section, Chief
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007

thanks, Erica

Erica Bergman

NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05

P.O. Box 420

Trenton, NJ 08625-0420

erica.bergman@dep.state.nj.us
609-292-7406

****************** ATTACHMENT NOT DELIVERED *************

This Email message contained an attachment named image001.jpg which may be a computer program. This attached computer program could contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at (866) 411-4EPA (4372). The TDD number is (866) 489-4900.

From: Azzam, Nidal

Sent: Friday, March 07, 2014 12:26 PM

To: Bergman, Erica Cc: Park, Andy

Subject: RE: Solvay- air modeling results

Erica,

Our project manager, Andy park, is back from his detail, please include him in your distribution list. Andy id also planing to review the air dispersion modeling. Thank you.

Nidal Azzam,
Base Program Management Section, Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 12:05 PM

To: Gertz, Mitchell (mitchell.gertz@solvay.com)

Cc: Azzam, Nidal

Subject: Solvay- air modeling results

Mitch,

As we discussed, Solvay will present the air dispersion modeling results to DEP for review possibly next week. Nidal Azzam at EPA has asked me to request a hard copy and an electronic copy as well for their air program to review.

Please submit this report to Nidal Azzam at the below address:

Nidal Azzam
Base Program Management Section, Chief
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007

thanks, Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From:

Azzam, Nidal

Sent:

Friday, March 07, 2014 12:26 PM

To:

Bergman, Erica

Cc:

Park, Andy

Subject:

RE: Solvay- air modeling results

Erica,

Our project manager, Andy park, is back from his detail, please include him in your distribution list. Andy id also planing to review the air dispersion modeling. Thank you.

Nidal Azzam,
Base Program Management Section, Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]

Sent: Friday, March 07, 2014 12:05 PM

To: Gertz, Mitchell (mitchell.gertz@solvay.com)

Cc: Azzam, Nidal

Subject: Solvay- air modeling results

Mitch,

As we discussed, Solvay will present the air dispersion modeling results to DEP for review possibly next week. Nidal Azzam at EPA has asked me to request a hard copy and an electronic copy as well for their air program to review.

Please submit this report to Nidal Azzam at the below address:

Nidal Azzam
Base Program Management Section, Chief
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007

thanks, Erica

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From:

Bergman, Erica < Erica. Bergman@dep.state.nj.us>

Sent:

Wednesday, February 12, 2014 3:08 PM

To:

Park, Andy

Cc: Subject: Azzam, Nidal RE: Solvay - PWSs

Andy,

EPA should have an electronic copy of the Nov 2013 PFC workplan. Nidal had forwarded this to the Riverkeeper electronically. Please contact Mitch Gertz from Solvay for electronic copies or CDs of PWS sampling reports. I only have CDs of the PWS sampling and they are too large to send via email.

Mitch Gertz - 856-251-6630 mitchell.gertz@solvay.com

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov] Sent: Wednesday, February 12, 2014 3:01 PM

To: Bergman, Erica Cc: Azzam, Nidal Subject: Solvay - PWSs

Erica,

The CD for the East Greenwich PWS sampling report appears to be empty. Can you please help me get an e-copy of the document? I would also appreciate it if you help me get e-copies of the PFC Work Plan (November 2013), the West Deptford PWS Sampling Report, and the Paulsboro PWS Sampling Report. I am willing to download them from a Web link. I understand that we are still waiting for the Greenwich PWS sampling report. Thanks.

Andrew Park U.S. EPA Region 2 212-637-4184

From:

Park, Andy

Sent:

Wednesday, February 12, 2014 3:01 PM

To:

Erica.Bergman@dep.state.nj.us

Cc:

Azzam, Nidal

Subject:

Solvay - PWSs

Erica,

The CD for the East Greenwich PWS sampling report appears to be empty. Can you please help me get an e-copy of the document? I would also appreciate it if you help me get e-copies of the PFC Work Plan (November 2013), the West Deptford PWS Sampling Report, and the Paulsboro PWS Sampling Report. I am willing to download them from a Web link. I understand that we are still waiting for the Greenwich PWS sampling report. Thanks.

Andrew Park U.S. EPA Region 2 212-637-4184